



**Department of
Environmental
Conservation**

Taconic Plastics Remedial Investigation – Progress Update

Site Number: 442047

Site Location: 136 Coonbrook Road, Petersburg, NY

January 2023

DER Agenda

1. Remedial Investigation to date
2. RI Phase 2a results summary
3. Building 1 supplemental investigation results
4. Part 1 FWIA results
5. Scope of work - RI Phase 2b Work Plan
6. Q & A



Remedial Investigation Timeline

2018 - 2019

- NYSDEC Approves Remedial Investigation Work Plan (RIWP)
- Environmental sampling commences (spring 2018)
- Phase 1 sampling (on-site and near-site) completed (Fall 2019)

2020 - 2022

- NYSDEC Approves RI Phase 1 interim report (Feb. 2020)
- NYSDEC Approves Phase 2a RIWP for off-site investigation (Sep. 2020)
- Off-site investigation field work (Nov. 2020 – Mar. 2022)
- NYSDEC Approves Building 1 Supplemental RIWP (August 2021)



Conceptual Site Model (Developed From Phase 1 Data)

Contaminants of Concern:

- PFAS

Source:

- Historical disposal of industrial waste via on-site drywells and outfalls
- Historical Aerial deposition

Migration and Pathways:

- Overburden groundwater aquifer (shallow and deep) on- and off-site
- Bedrock Aquifer;
- Surface water;
- Migration toward the Little Hoosic River

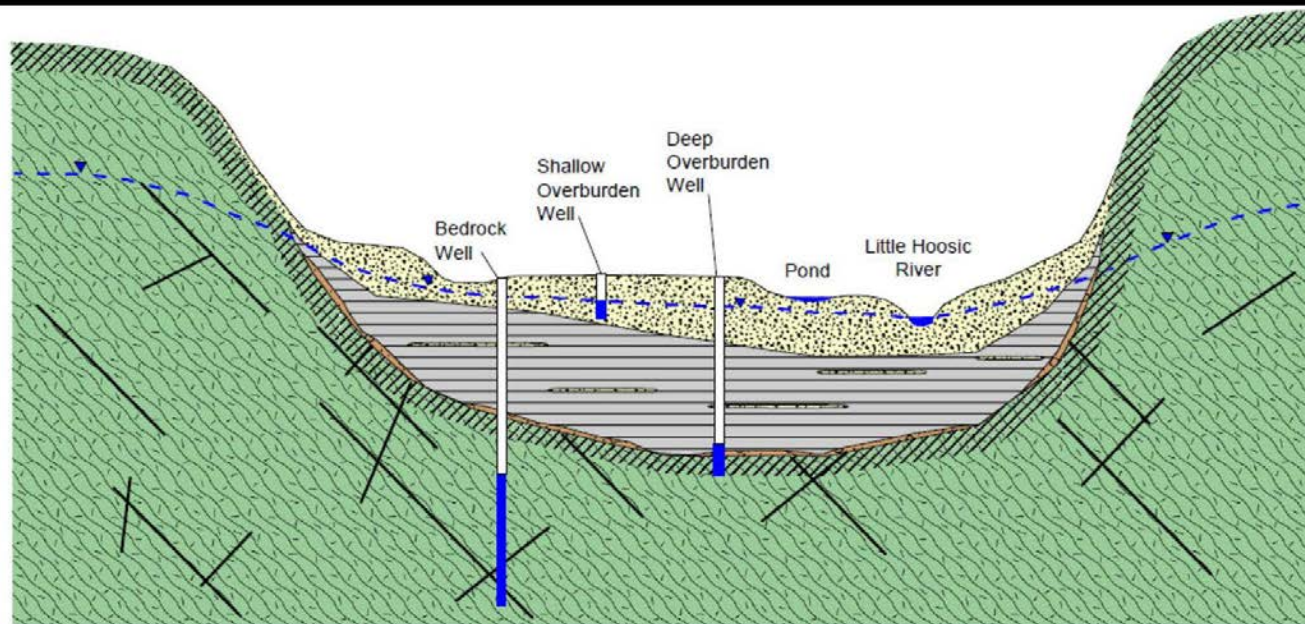
Exposure Pathway:

- Drinking water
- Surface soil
- Surface water

*Phase 2a data contributes to refining the CSM.

*Overall RI objective is to define nature and extent.





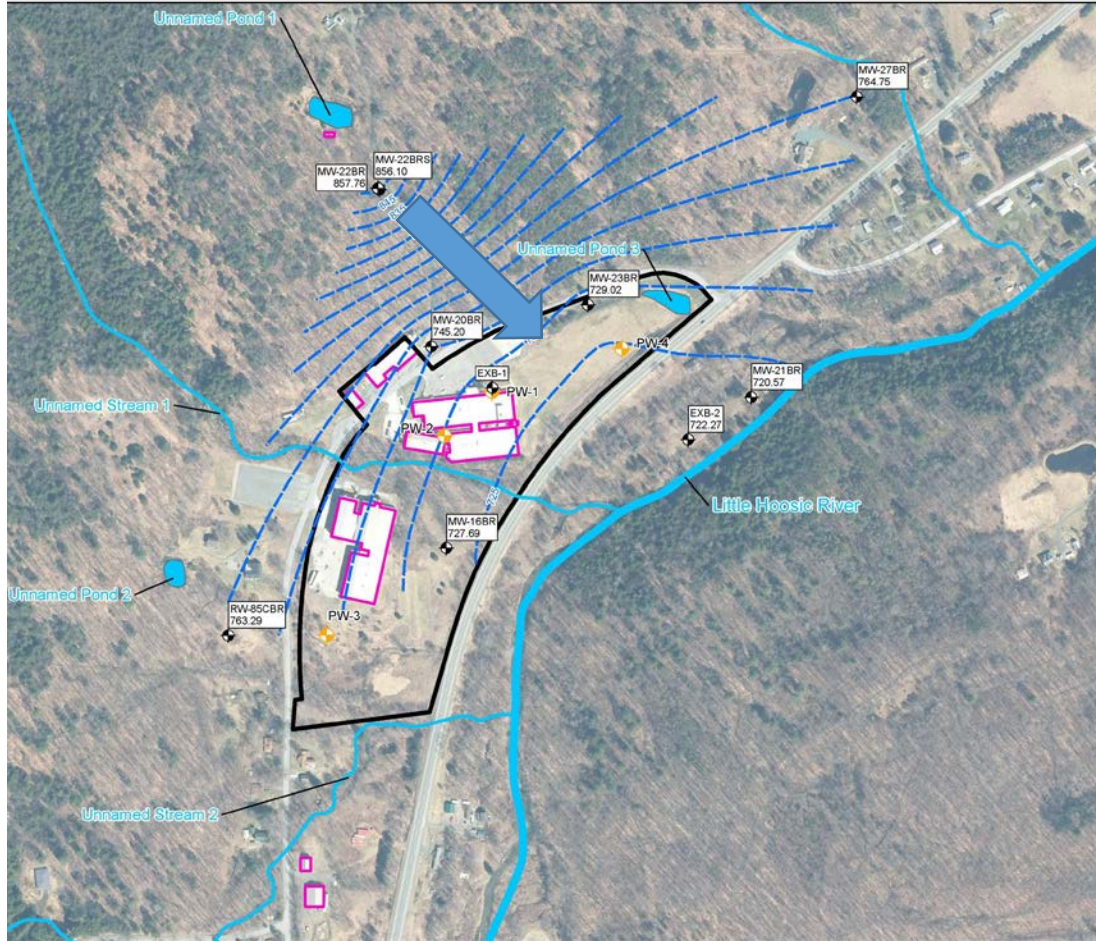
Geologic Legend	Hydrostratigraphic Unit	
	Upper Sand & Gravel	Surficial Water-Bearing Zone
	Silt & Clay with Sand & Gravel Lenses	Glaciolacustrine Aquitard
	Lower Sand & Gravel	Deeper Water-Bearing Zone
	Weathered Bedrock	
	Bedrock (Phyllite)	Water-Bearing Fractures

Water Table
 Bedrock Water-Bearing Fracture

Remedial Investigation Phase 2a

- Geophysical Transect across the northern end of the site
- Installation, logging, and sampling 7 bedrock wells
- 90 surface, near surface, and subsurface soil samples
- Additional surface water and sediment evaluations,
 - two baseline sampling events, 48 total samples, and 37 during stormflow
 - installation of staff gauges in Little Hoosick up and downstream of the facility
- Building 1 Investigation
 - 17 soil samples from 8 borings
 - groundwater sampling at 2 new wells and 5 existing wells
 - targeted surface water sampling





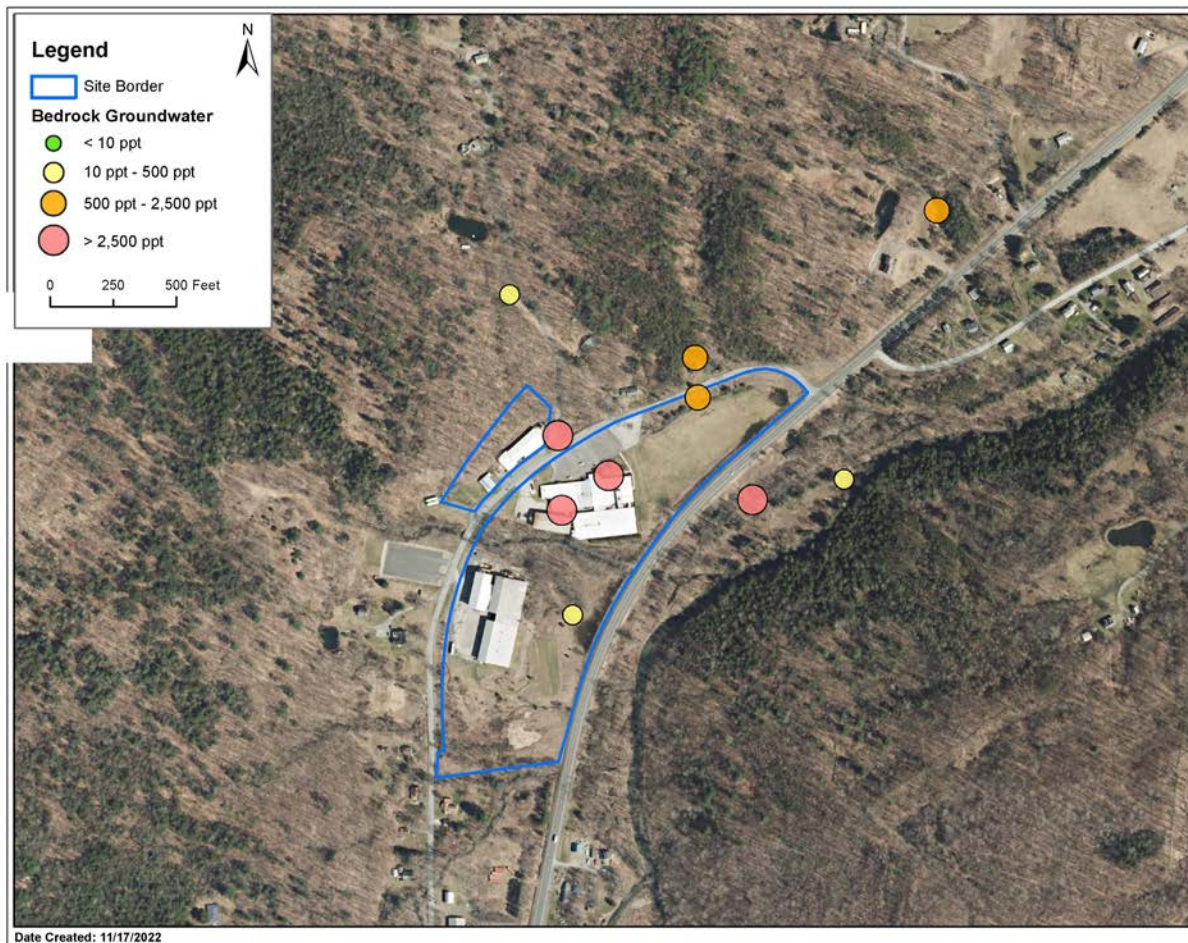
Bedrock Aquifer Investigation

- Geophysical transect and Logging of boreholes.
- 2 phases of bedrock well drilling
- Packer testing and targeted fracture sampling

PFOA in Bedrock Groundwater

- Phase 1 RI data:
Detections range from:
2100 to 8100 ppt

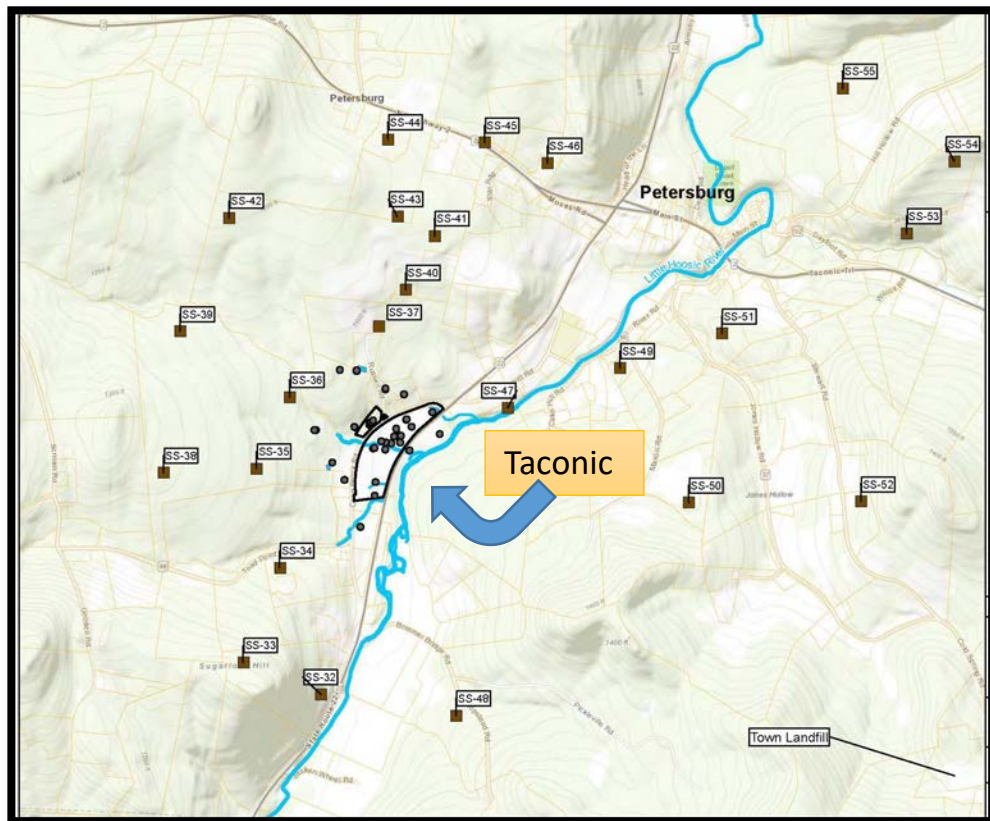




PFOA in Bedrock Groundwater Sampling

- 4-5 water bearing fractures identified and sampled in each well
- Range of highest detections in Phase 2a BR wells: 18-3000 ppt

Phase 2a: Off-Site Soil Sampling to Assess Aerial Deposition



Data Summary for PFOA

Average Concentration: 7.4 ppb

Concentration Range: 0.29 – 26 ppb

Concentration Range by Depth below ground surface (bgs):

0-2" bgs 0.8 – 21 ppb

2-12" bgs 0.29 – 26 ppb

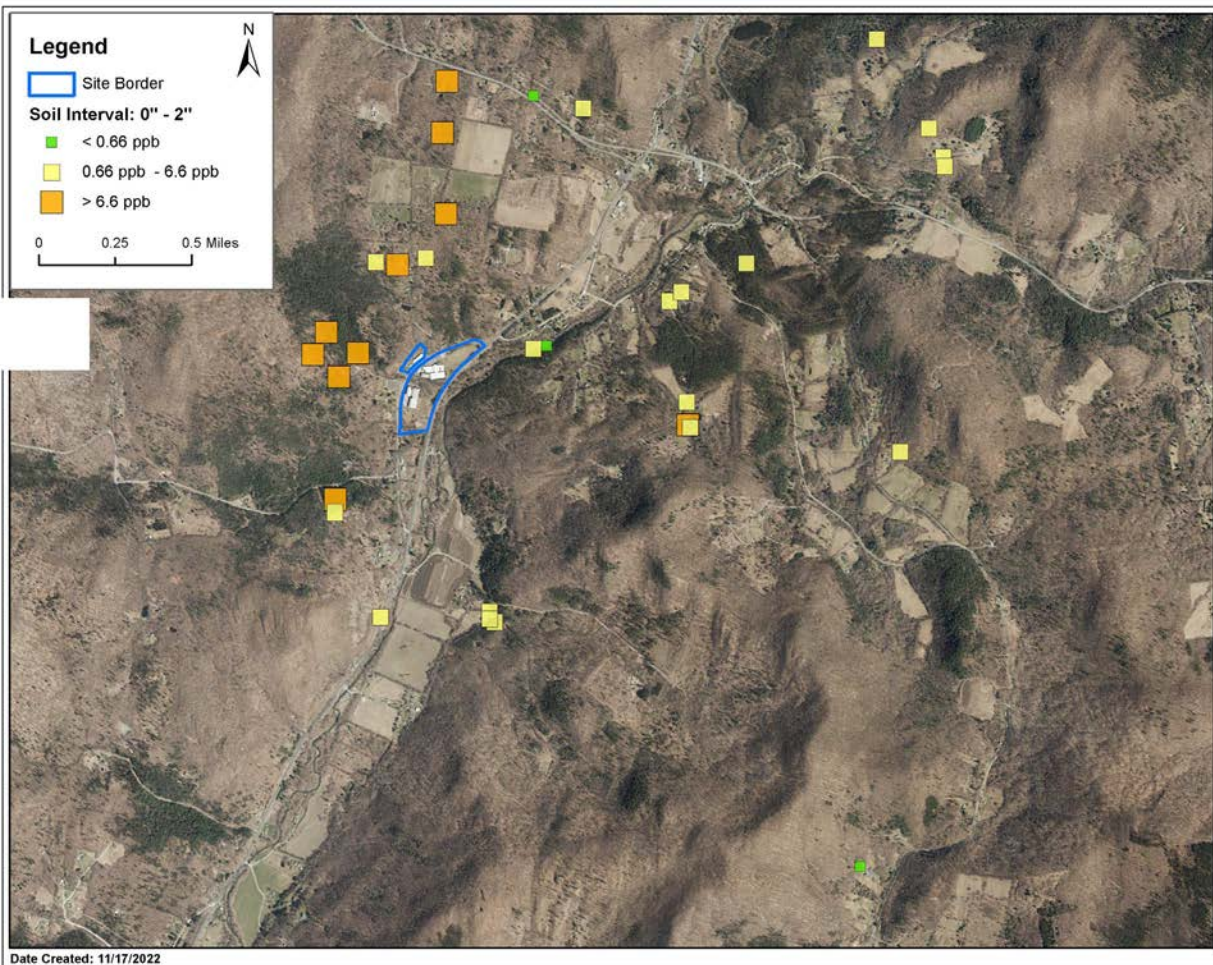
12-24" bgs 0.37 – 14 ppb

90 soil samples collected from 33 locations.

* soil guidance value for "Unrestricted Use" - 0.660 ppb



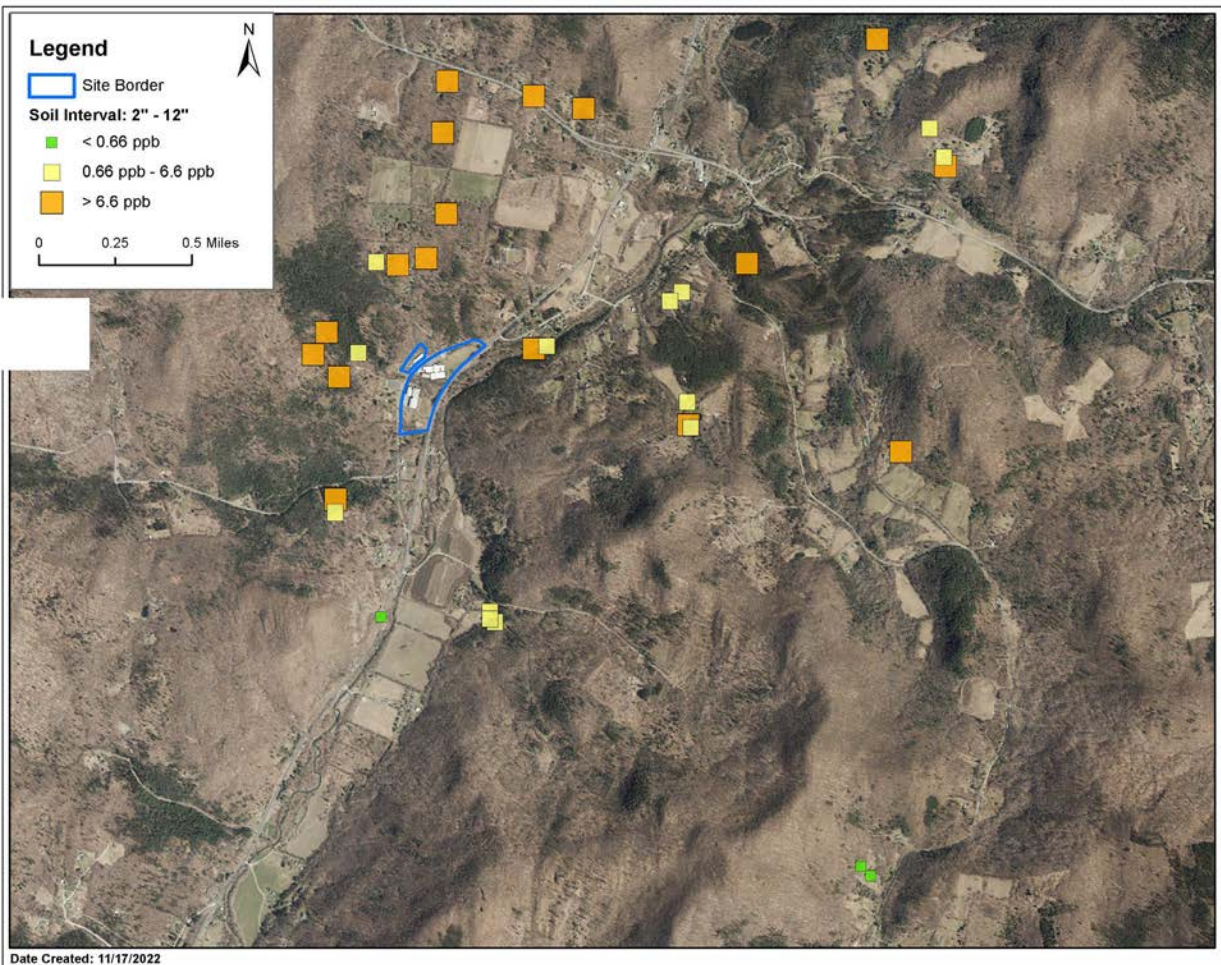
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Soil Sampling

Sampling Interval:

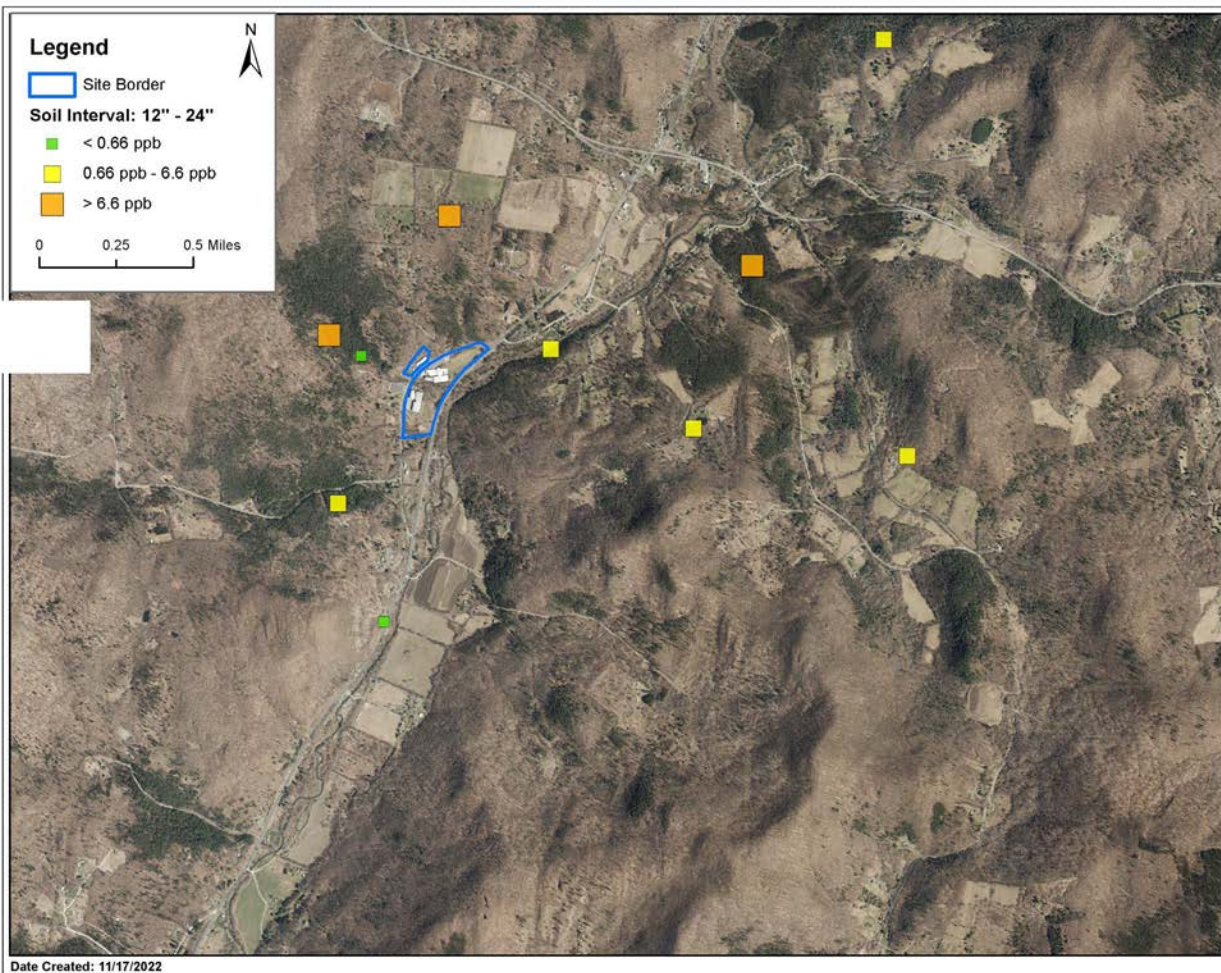
- 0-2 inches below ground surface
- Range of PFOA detections: 0.8 – 21 ppb



Soil Sampling

Sampling Interval:

- 2-12 inches below ground surface
- Range of PFOA detections: 0.29 – 26 ppb



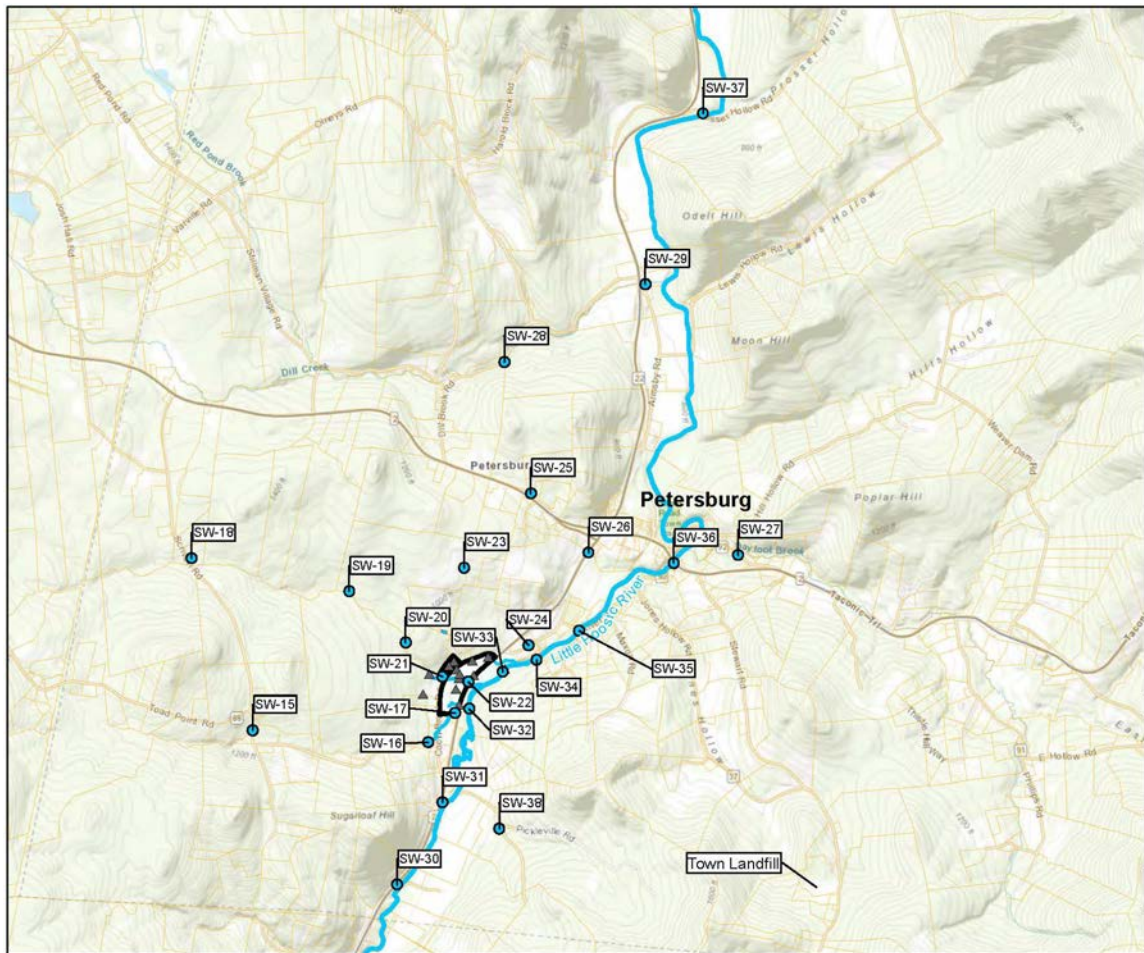
Soil Sampling

Sampling Interval:

- 12-24 inches below ground surface
- Range of PFOA detections: 0.37 – 14 ppb



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Surface Water and Sediment Sampling

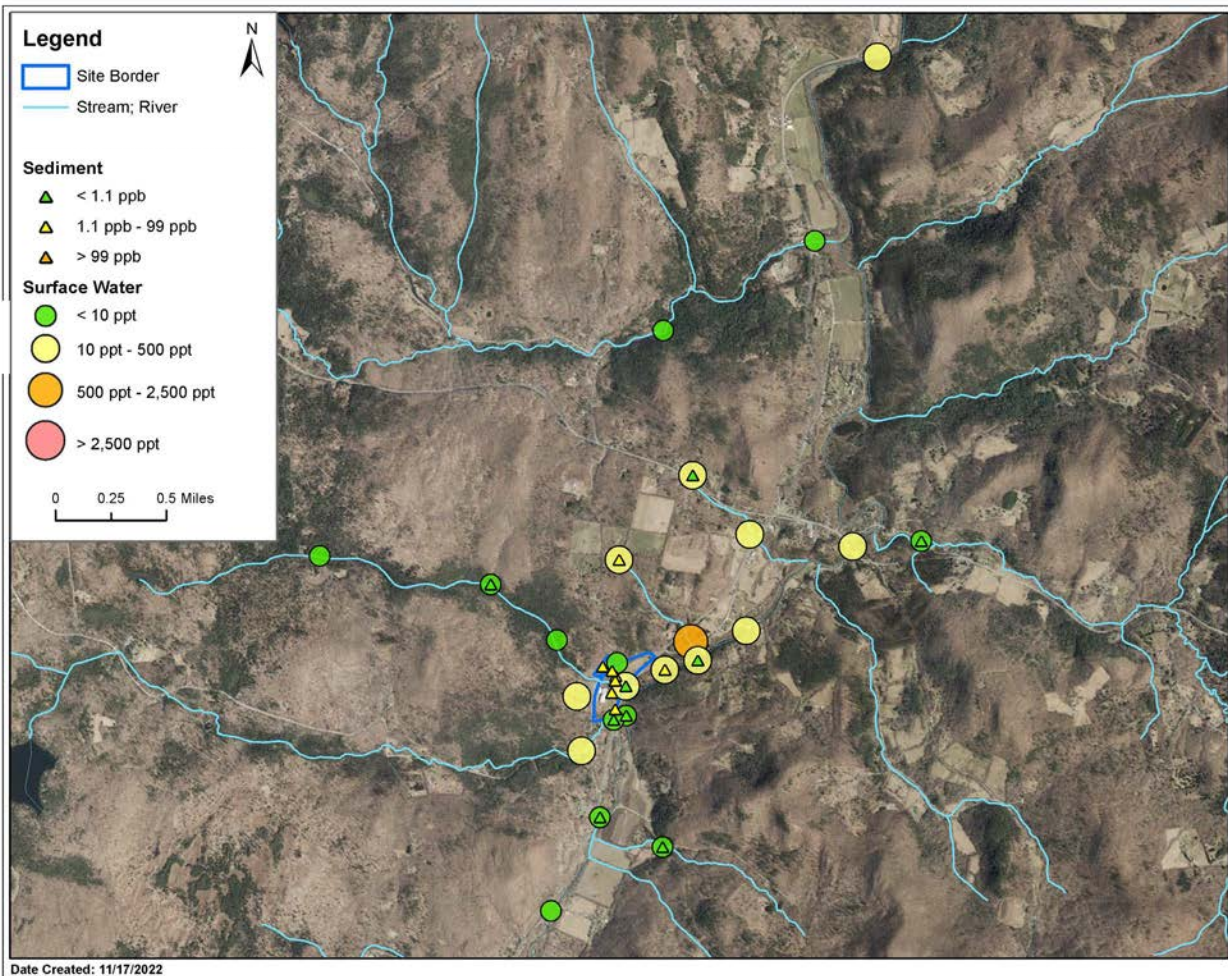
- 2 rounds of samples, 5 months apart
- Second round included some co-located sediment sampling.

* Round 1 completed November –December 2020

* Round 2 Sampling completed during May of 2021



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PFOA in Surface Water and Sediment

Baseflow conditions

Range of detections in sediment:

- 0.21-1.5 ppb

Range of detections in surface water:

- 0.74-540 ppt



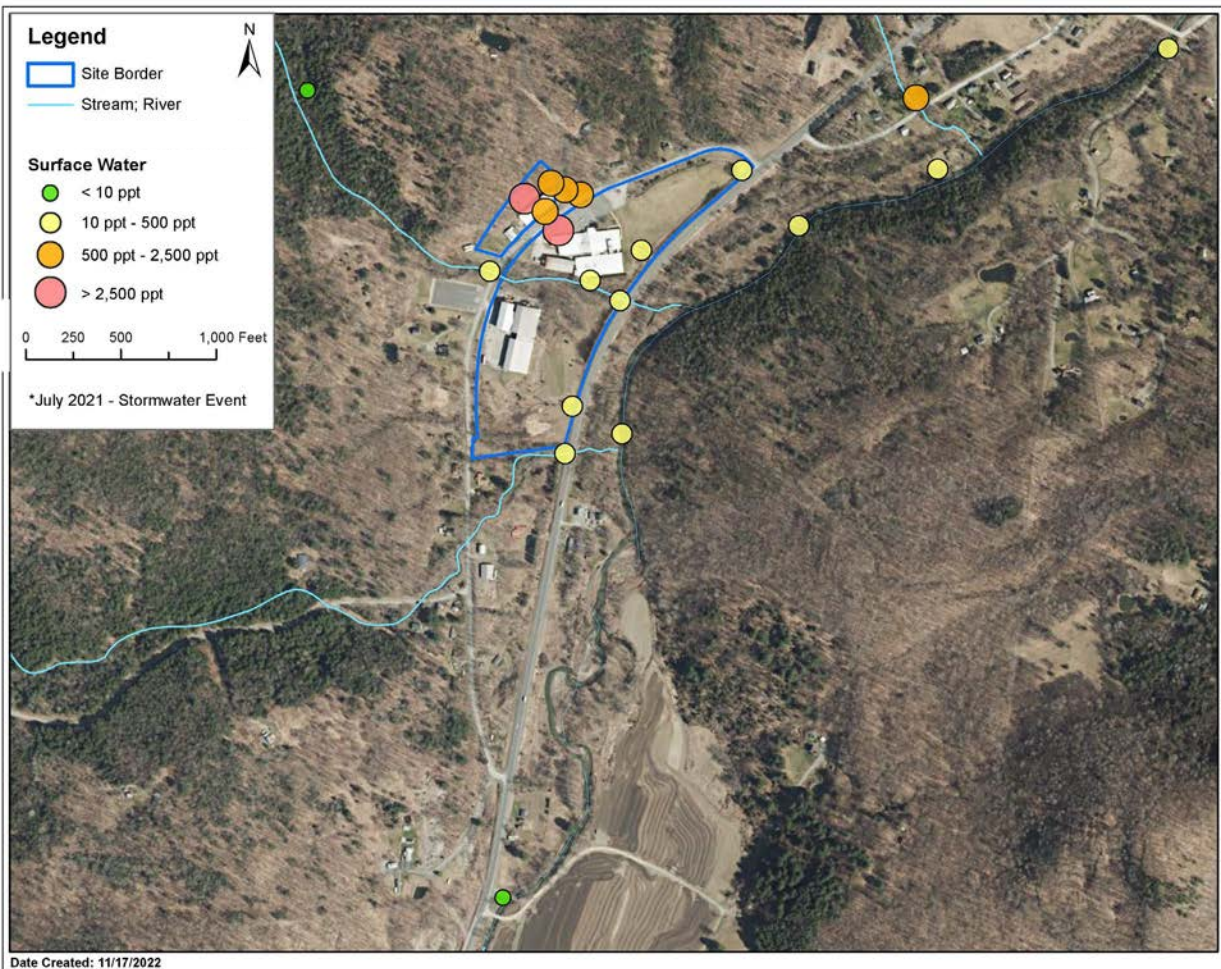
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PFOA in Surface Water

Stormwater Conditions

Range of detections:

- 1.8 – 19,000 ppt



Building 1 Supplemental RIWP

- Objective: additional investigation to better define nature and extent of contamination in the building 1 area
- Approved by NYSDEC in August 2021 as a supplement to Phase 2a
- Collection of 17 subsurface soil samples from 8 soil borings
- 3 borings converted to shallow groundwater monitoring wells
- 2 additional upgradient surface water sampling locations are identified
- 2 new monitoring wells, and five existing wells sampled



Building 1 Soil

PFOA Range of detections:

- 1.4-360 ppb



Building 1 Groundwater



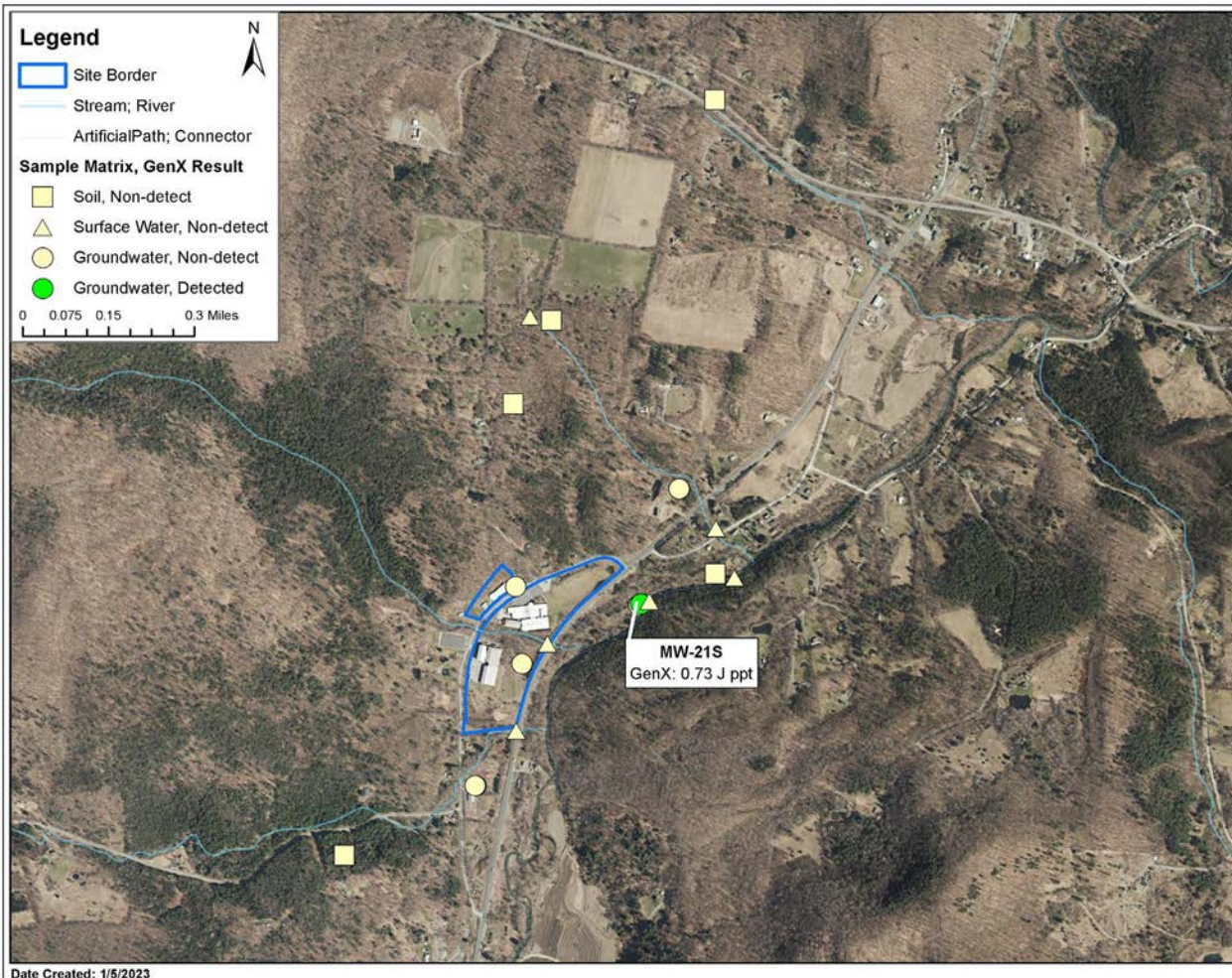
- PFOA concentration range between
- 1500 and 54,000 ppt in the groundwater in the vicinity of building 1

Building 1 Stormwater



● PFOA Detections range from 550-2500 ppt

● PFOA Detections range from 2800-19,000ppt



Gen X Sampling Results

5 Surface soils
7 Surface water
8 Groundwater
samples from 4
locations

Fish and Wildlife Impact Assessment, Part 1

- Received in August of 2022
- Provides a summary of:
 - Description of fish and wildlife resources:
 - Habitats
 - Biota
 - Potential pathways of exposure
 - air emissions, direct contact with soils or ground and surface water impacted by past emissions or direct disposal



Fish and Wildlife Impact Assessment, Part 1

- Site related contaminants of concern identified in the RI, including PFOA and PFOS, are potentially contaminants of ecological concern (CEC).
- Additional or follow up biota sampling will be required

*Definition - **Contaminant of Ecological Concern:***

- *Bioaccumulates in aquatic, marine, or terrestrial food chain*
- *Results in toxic effects; and/or*
- *Potentially contributes to the need for a health advisory for the consumption of fish or wildlife.*



Additional Work Plans

- Qualitative Human Health Exposure Assessment (QHHEA) Scope of Work
- Approved in May 2022
 - QHHEA is a component of the RI Report
 - evaluates how people might be exposed to site related contaminants: exposure pathways will include, ingestion, inhalation, and dermal exposure
 - Identify and characterize potentially exposed populations
- Remedial Investigation Phase 2b Work Plan – continuation of HHEA
 - Received September 2022
 - Approved on December 9th, 2022
 - Detailed plans for sampling locally-produced agricultural products in the Petersburg area



Phase 2b Work Plan

The purpose of the QHHEA is to evaluate and document the potentially exposed population(s) now and under reasonably anticipated future use of the site. Phase 2b is being completed to support the QHHEA.

Objective of the 2b work plan:

- Collect data necessary to evaluate if pathways related to consumption of local agricultural products are complete; and
- Identify additional data that may be needed to support the completion of the QHHEA related to the consumption of local agricultural products.



Phase 2b Work Plan Scope

- Sampling and analysis of local agricultural products.
- Questionnaires will be completed for each sampling locality for additional information about the produce, including water source, fertilizer, and other feed sources for cows or chickens.
- 15-20 samples of different types of fruit and vegetables
- 2 samples of maple syrup
- 2 eggs collected from three different locations
- 2 milk samples from 2 dairy producers
- 4 samples of beef or chicken



Remedial Investigation Next Steps

Identify data gaps and plan additional sampling

- Surface water
- Surface and subsurface soils
- Bedrock wells
- FWIA and QHHEA data needs



Community Participation Plan

Site-specific living document which contains:

- Project contacts
- Site contact list
- Overview of the state Superfund program
- Schedule of community participation activities as they relate to program benchmarks
- Recently updated: November 2022



POET Status

DEC maintains 89 POETs in the Petersburg area

Taconic maintains 103 POETs within the area of interest

Locations without POETs are monitored every 1 to 2 years, if the owner agrees to sampling.

Requests for new sampling should be directed to NYSDEC



Thank You

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TACONIC Documents and Information:
<https://gisservices.dec.ny.gov/gis/dil/index.html?rs=442047>



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